



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

To: DeYoung
File



STEVEN E. CHESTER
DIRECTOR

March 27, 2006

The Honorable Patricia Birkholz, Chair
Senate Natural Resources and Environmental Affairs Committee
State Capitol
P.O. Box 30036
Lansing, Michigan 48909-7536

The Honorable David Palsrok, Chair
House Natural Resources, Great Lakes, Land Use, and Environment Committee
State Capitol
P.O. Box 30014
Lansing, Michigan 48909-7514

Dear Senator Birkholz and Representative Palsrok:

SUBJECT: Report to the Michigan Legislature

In accordance with Section 31711 of 2003 PA 177 (Act 177), the Aquifer Protection and Dispute Resolution Act, the Michigan Department of Environmental Quality (MDEQ) is submitting the enclosed report to the standing committees with jurisdiction on environmental matters.

The report contains an analysis of costs of program implementation to date and recommendations for modifications to Act 177 that would improve overall effectiveness.

If you have any questions, you may contact Mr. James K. Cleland, Chief, Lansing Operations Division, Water Bureau, at 517-241-1287, or you may contact me.

Sincerely,

Steven E. Chester
Director
517-373-7917

Enclosure

cc/enc: Ms. Teresa Bingman, Governor's Office
Members of the Senate Department of Environmental Quality Subcommittee
Members of the House Department of Environmental Quality Subcommittee
Mr. Stanley F. Pruss, Deputy Director, MDEQ
Ms. Carol Linteau, Legislative Liaison, MDEQ
Mr. Richard A. Powers, MDEQ
Mr. James K. Cleland, MDEQ

**DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
REPORT TO THE MICHIGAN LEGISLATURE
IN RESPONSE TO PUBLIC ACT 177 OF 2003
AQUIFER PROTECTION AND DISPUTE RESOLUTION
MARCH 2006**

Purpose and Scope

This report is submitted to meet the requirements set forth by the Michigan Legislature in 2003 PA 177 (Act 177), which established an aquifer protection and groundwater dispute resolution program. Act 177 amended the Natural Resources and Environmental Protection Act, 1994 PA 451 (Act 451), by adding Part 317, Aquifer Protection and Dispute Resolution, MCL 324.31701, *et seq.* Act 177 created a process whereby a person whose small quantity water well failed to supply its normal supply of water or failed to furnish potable water and the person has credible reason to believe the well's problems were caused by a high capacity well, can file a complaint with the Michigan Department of Environmental Quality (MDEQ) or the Michigan Department of Agriculture (MDA) (if the complaint involves an agricultural well), alleging a potential groundwater dispute.

Section 31711 of Act 177 mandates the MDEQ to submit a report not later than April 1, 2004, and every two years thereafter, which includes both of the following:

- (a) An analysis of the department's costs of implementing Part 317 and whether the limitation on reimbursable costs under Section 31706(2) should be modified.
- (b) Recommendations on modifications to Part 317 that would improve its overall effectiveness.

This report is to be submitted to the standing committees of the Michigan Senate and House of Representatives.

Cost Analysis

The MDEQ received \$200,000 in general fund support for Fiscal Year 2004 and Fiscal Year 2005 and was authorized to hire two full-time equivalent staff (FTE). In addition, the Aquifer Protection Revolving Fund (APRF) was appropriated at \$500,000. The MDA had no initial appropriation to implement their part of the dispute resolution program. For Fiscal Year 2006, the general fund support was eliminated and \$50,000 of the \$400,000 APRF appropriation was directed to fund MDA's groundwater dispute resolution activities. The MDEQ has one FTE assigned to the aquifer protection and dispute resolution program.

If the number of complaints filed in the next years is similar to the number of complaints filed in the past two years, if program staff are successful at resolving complaints without using the MDEQ order provisions in Section 31703 of Act 177, and if the APRF appropriation is reauthorized at the same level at the beginning of each fiscal year, the program appears to be adequately funded.

It must be recognized that many provisions of the statute have not yet been used. If the MDEQ finds it necessary to expend funds to conduct hydrogeologic investigations (install water level monitoring wells, institute localized or regional groundwater level monitoring, develop groundwater models, or analyze data using computerized groundwater models) and issue orders declaring a groundwater dispute and seeking cost recovery, program implementation costs will escalate.

Groundwater Dispute Complaints Filed

(October 1, 2003 through February 13, 2006)

Resolved Complaints:	28
Closed or Invalid Complaints:	28
Unresolved Complaints:	<u>8</u>

Total Complaints Received: 64

Resolved Complaint Details

<u>County</u>	<u>High Capacity Well Type</u>	<u>Number of Complaints</u>
Antrim	Golf Course Irrigation	1
Charlevoix	Quarry Dewatering	5
Monroe	Quarry Dewatering	13
Saginaw	Agricultural Irrigation	9

A total of 19 complaints involving agricultural high capacity wells were forwarded to the MDA by the MDEQ for investigation.

Program Expenditures

<u>Fiscal Year</u>	<u>General Fund</u>	<u>Aquifer Protection Revolving Fund</u>
2005	\$200,000	\$776.65
2006	N/A	\$23,560.23 (through December 31, 2005)

Suggested Modifications to Part 317

The following modifications to Part 317 are recommended to improve the overall effectiveness of the aquifer protection and groundwater dispute resolution program.

Lake Augmentation Wells:

The definition of a high capacity well in Section 31701(j) should be amended to include lake augmentation wells. A lake augmentation well should be defined as a well constructed to extract groundwater and discharge it into a lake or impoundment to supplement natural flow to the water body and raise the water level. Due to their high capacity, lake augmentation wells have the potential to cause groundwater disputes.

Potable Water Determination:

The definition of potable water in Section 31701(o) should reference a standard to determine water quality parameters that are acceptable for human consumption. The primary Maximum Contaminant Levels listed in the U.S. Environmental Protection Agency, Office of Water's Drinking Water Standards and Health Advisories are used in state drinking water programs.

Terminology Change:

The definition of "small quantity well" in Section 31701(q) should be changed to "low capacity well." The change in terminology would provide consistency with "high capacity well" and benefit the public in understanding the law.

Notification of Complaint:

Part 317 does not require notification of the high capacity well owner after the filing of a complaint. While the current MDEQ program staff routinely notifies high capacity well owners of complaints filed against them, an amendment to Section 31702 is appropriate.

On-Site Evaluation Time Frame Modification:

Section 31702(3) states an on-site evaluation shall be completed within five working days of filing a complaint with the MDEQ. The language should be modified to state that the on-site evaluation shall be performed within five working days after the written assessment (if requested) is received by the department. This change would increase the usefulness of the on-site evaluation and reduce staff time when the information obtained from the written assessment determines the complaint is invalid.

Additional Use of the Aquifer Protection Revolving Fund:

In an effort to utilize resources effectively and ensure the completion of timely investigations, the MDEQ recommends an additional expanded use of the APRF under Section 31702(3). The APRF should be available to pay a small quantity well owner to resolve a complaint when the total recoverable amount is less than \$1,000, the existing data available does not rule out that a groundwater dispute may be declared, and the use of the APRF to conduct an investigation will be necessary. Specific criteria to use the APRF under this provision could be developed by the MDEQ and MDA, with subsequent concurrence of the Groundwater Conservation Advisory Council.

Time Period for Complaint Resolution:

In most cases, the time frame of 14 days in Section 31702(4) is inadequate for the MDA to obtain the information necessary to resolve complaints. The MDA should be able to extend the time frame when resolution is likely to occur. The ability to revoke the extension should be available to the high capacity and small quantity well owners.

Investigation Cost Reimbursement:

The MDEQ is unable to recover investigation costs, including hydrogeologic studies performed by third party contractors, until a groundwater dispute is declared under Section 31703. Part 317 should be amended so the MDEQ can require the reimbursement of monies spent out of the APRF as part of the complaint resolution.

Water Level Data Collection:

Section 31703(1)(d) states an investigation must disclose "That the lowering of the groundwater level exceeds normal seasonal water level fluctuations...." in order to declare a groundwater dispute. Without the monitoring of water levels in areas unaffected by pumping, normal seasonal fluctuations cannot be accurately determined. The aquifer protection and dispute resolution program would benefit from the development and implementation of a statewide groundwater level monitoring network that would track changes to ascertain fluctuations caused by natural factors or human activities. The MDEQ and Groundwater Conservation Advisory Council can offer recommendations on areas with the greatest need for monitoring.

Recharge Capability Language Modification:

The term "recharge capability," that is used in Sections 31703(2) and 31705(2)(b), is not an appropriate measure to determine if a groundwater dispute is occurring. The effects of pumping from a high capacity well on a small quantity well are primarily related to the hydraulic properties of the aquifer and physical characteristics of each well. Also, regional groundwater withdrawals are typically much less than the estimated regional recharge. Part 317 should be modified to replace the phrase "will exceed the recharge capability of the groundwater resource of the area" with "will adversely impact low capacity wells in the area" (or a statement with similar meaning).

Complaints Filed Against Multiple High Capacity Well Owners:

A drop in water level within a complainant's well may be attributed to the pumping of multiple high capacity wells. The law does not establish criteria for determining how much of the timely and reasonable compensation each high capacity well owner would be responsible for paying to the small quantity well owner. Under Section 31707, the obligation of each high capacity well owner could be based on a percentage of the drawdown related to high capacity well pumping caused by individual users.

Reimbursement of Expenses:

The 30-day time frame listed in Section 31707(1)(a) for reimbursement of expenses reasonably incurred by the complainant is too short. A number of potentially valid complaints were closed because the small quantity well owner did not submit the necessary paperwork within the required time period. A 60- to 90-day requirement is recommended to provide additional time to the small quantity owner and still allow the MDEQ or MDA to obtain information necessary to determine the validity of the complaint.

Reimbursable Expenses:

Two additional expenditures incurred by small quantity well owners should be eligible for timely and reasonable compensation by the high capacity well owner under Section 31707(1):

- The cost for analyzing drinking water quality samples related to complaints where the well has failed to furnish potable water.
- Expenses to plug the abandoned small quantity well when a new well must be drilled or when a resident is connected to municipal water to replace the well that failed.

High Capacity Well Exemptions:

Section 31709(b) should be removed from Act 177. Part 317 should apply to a public water supply system that is owned or operated by a local unit of government. The state's wellhead protection program evaluates the ability of the aquifer to sustain pumping to meet the demands of the public water supply and comply with Michigan's Safe Drinking Water Act, 1976 PA 399, as amended, and does not evaluate the effects of high capacity well pumping on nearby small quantity wells. Having an approved wellhead protection plan does not prevent adverse impacts on neighboring small quantity wells.